

---

**Subject:** FW: Aviation emissions from an expanded Heathrow

**From** [redacted]

**Sent:** 15 June 2018 10:59

**To:** [redacted]

**Subject:** FW: Aviation emissions from an expanded Heathrow

Hi [redacted]

As just discussed here's the email from [redacted] about calculating aviation emissions as result of Heathrow Expansion.

It would be worth having a chat with [redacted] about this ask. Also worth speaking with [redacted] (he took on drafting the ADT emissions paper when [redacted] was on leave) and [redacted].

On paper it seems like a reasonably straightforward ask but let me know if this proves to be more complex.

Many thanks,  
[redacted]

---

**From:** [redacted]

**Sent:** 07 June 2018 12:00

**To:** [redacted]

**Cc** [redacted]

**Subject:** Aviation emissions from an expanded Heathrow

[redacted]

As discussed, it would be helpful if we could get a figure to quantify the potential increase in GHG emissions that would be generated by additional air services from Scotland to an expanded Heathrow. I'm thinking about something similar to the figure we came up with for the impact of reducing APD. I would expect, though, that the Heathrow figure would be significantly less. Obviously we don't know how many, if any,

additional flights Scotland will get from the increased capacity at Heathrow but our ask of the UK Government (not in the public domain) is for a proportionate share of the new capacity to be introduced sometime after 2026 which we've calculated as 4.8%. This could look like:

[Redact - Reg 10(4)(e) Internal Communication]

Airlines are continuing to renew their fleets so come 2026 we would expect a higher proportion of aircraft to have lower emissions. It would be helpful if this could be incorporated into the calculation.

If you need any further information please let me know.

Thanks  
[redacted]

---

[redacted]  
Aviation Policy  
Transport Scotland

Area 2D (N)  
Victoria Quay  
Edinburgh  
EH6 6QQ

[redacted]



**TRANSPORT  
SCOTLAND**  
CÒMHDAIL ALBA

An agency of  The Scottish Government





---

**Subject:** FW: Aviation emissions from an expanded Heathrow

**From:** [Redacted]  
**Sent:** 03 July 2018 10:34  
**To:** [Redacted]  
**Cc:** [Redacted]  
**Subject:** RE: Aviation emissions from an expanded Heathrow

Hello all,

I've just talked this through with [Redacted] – we used [Redacted under – Reg 10(4)(d) –Material in the Course of completion, unfinished documents or incomplete data] to refer to pair flights (apologies for not making this clearer!) so this is in accordance with the ask. I'll make the changes suggested below and email back as soon as I can.

Very best,

[Redacted]

---

**From:** [Redacted]  
**Sent:** 29 June 2018 11:26  
**To:** [Redacted]  
**Cc:** [Redacted]  
**Subject:** RE: Aviation emissions from an expanded Heathrow

[Redacted]

Many thanks. We'll be having a Branch chat about this next week.

A few points meantime:

Any reason why the weekly return flights number is [Redacted under – Reg 10(4)(d) –Material in the Course of completion, unfinished documents or incomplete data] As you know, our ask is; [Redacted under – Reg 10(4)(d) –Material in the Course of completion, unfinished documents or incomplete data]

The best case scenario for the new runway is 2026. Is it possible to take out some of the early years pre-2026 and add a few post 2032?; Would be useful to see these figures compared to the overall Scottish aviation emissions figures going forward if we have them and perhaps also the equivalent Heathrow third runway figures.

Regards

[Redacted]

---

**From:** [Redacted]

**Sent:** 26 June 2018 12:47

**To** [Redacted]

**Cc:** [Redacted]

**Subject:** Aviation emissions from an expanded Heathrow

Dear [Redacted]

I hope that this finds you well. I've calculated the projected emissions we could expect for Scotland from Heathrow expansion on the basis of the additional services and passengers detailed in the draft proposal.

Assuming an extra [Redacted under – Reg 10(4)(d) –Material in the Course of completion, unfinished documents or incomplete data] passengers per annum, and taking into account improvements in aircraft efficiency over time (using figures for carbon per passenger from [Redacted] ADT analysis), we can expect the following additional emissions:

[Redacted under – Reg 10(4)(d) –Material in the Course of completion, unfinished documents or incomplete data]

You may already be aware of this, however, DfT passenger number forecasts from their publication in 2017 predict that Heathrow expansion will result in a net loss of air passengers from Scotland:

Airport	Demand	2030			2040					
		Low	Central	High	Low	Central	High	Low	Central	High
Edinburgh	Baseline	12,054,268	12,518,404	13,259,890	14,480,552	15,411,484	16,145,669	16,718,575	17,631,908	19,320,302
	LHR 3rd Runway	12,004,855	12,862,833	13,573,290	14,599,873	16,295,180	16,525,935	17,278,540	18,983,370	19,461,806
	Difference	-49,413	344,429	313,400	119,321	883,696	380,266	559,965	1,351,462	141,504
Glasgow	Baseline	11,064,991	12,221,693	12,898,815	12,297,935	13,100,622	14,290,239	14,326,104	15,259,088	16,042,200
	LHR 3rd Runway	10,893,954	11,645,763	12,493,622	12,030,067	12,117,976	13,891,667	13,959,995	14,037,473	16,124,822
	Difference	-171,037	-575,930	-405,193	-267,868	-982,646	-398,572	-366,109	-1,221,615	82,622

This is based on a complex air passenger demand model - we have contacted DfT to explain why they predict this might be the case, and are currently awaiting a response.

Very best,

[Redacted]





---

**Subject:** FW: Aviation emissions from an expanded Heathrow

**From:** [Redacted]

**Sent:** 05 October 2018 18:16

**To:** [Redacted]

**Subject:** RE: Aviation emissions from an expanded Heathrow

Hi [Redacted]

I've had a chance to look at the working analysis, thanks for sending this on. I have two main questions:

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

1. What is the current expectation for finalising (and potentially publishing) this work?

Happy to continue to discuss by email for now and/or to arrange to meet with yourself and others in a few weeks to review? The CCC's annual Scottish progress report did not contain new advice on aviation emissions, so we aren't likely to hear further from them now on this until their special advice at a UK level next Spring. Nonetheless, I'd definitely like us to have a chance to discuss handling well in advance of any publication of this new TS analysis on Scottish aviation emissions.

Best wishes,

[Redacted]

Delivery Unit | Decarbonisation Division | Directorate for Energy and Climate Change | Scottish Government

[Redacted] Area 3F South, Victoria Quay, Edinburgh, EH6 6QQ

[www.gov.scot/climatechange](http://www.gov.scot/climatechange) | [@ScotGovClimate](https://twitter.com/ScotGovClimate)

---

**From** [Redacted]

**Sent:** 01 October 2018 09:37

**To:** [Redacted]

**Subject:** FW: Aviation emissions from an expanded Heathrow

[Redacted]

As discussed, we could maybe have a catch up once you've had a chance to look at the attached.

Thanks

[Redacted]

---

**From:** [Redacted]

**Sent:** 11 September 2018 14:29

**To:** [Redacted]

**Cc:** [Redacted]

**Subject:** RE: Aviation emissions from an expanded Heathrow

Hi [Redacted],

Apologies for the delay on this – please find estimates attached ('Request 2 – tables' tab).

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

Very best,

[Redacted]

---

**From** [Redacted]

**Sent:** 13 August 2018 13:03

**To:** [Redacted]  
**Cc:** [Redacted]  
**Subject:** RE: Aviation emissions from an expanded Heathrow

[Redacted]

Sounds good.

Thanks

[Redacted]

---

**From** [Redacted]

**Sent:** 13 August 2018 11:45  
**To**[Redacted]  
**Cc:** [Redacted]  
**Subject:** RE: Aviation emissions from an expanded Heathrow

Hi [Redacted] (cc'ing [Redacted] for ADT interests)

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

Assuming you're ok with this,[Redacted] will have an initial look at the methodologies and we can take it from there.

Happy to discuss, [Redacted].

---

**From:** [Redacted]  
**Sent:** 31 July 2018 14:39  
**To:** [Redacted]  
**Subject:** RE: Aviation emissions from an expanded Heathrow

[Redacted]

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

Let me know if it would be helpful to have a chat about this.

Thanks

[Redacted]

---

**From** [Redacted]

**Sent:** 04 July 2018 11:22

**To:** [Redacted]

**Cc:** [Redacted]

**Subject:** RE: Aviation emissions from an expanded Heathrow

Hello all,

Many thanks for your comments so far – please find below the updated figures.

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

[Redact – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

Please note – the previous table had a small error in the labelling of years, which has now been corrected, so the above version is the correct one.

Very best,

[Redacted]

---

**From:** [Redacted]

**Sent:** 29 June 2018 11:26

**To:** [Redacted]

**Cc:** [Redacted]

**Subject:** RE: Aviation emissions from an expanded Heathrow

[Redacted],

Many thanks. We'll be having a Branch chat about this next week.

A few points meantime:

Any reason why the weekly return flights number is [Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

As you know, our ask is [Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

The best case scenario for the new runway is 2026. Is it possible to take out some of the early years pre-2026 and add a few post 2032?; Would be useful to see these figures compared to the overall Scottish aviation emissions figures going forward if we have them and perhaps also the equivalent Heathrow third runway figures.

Regards

[Redacted]

---

**From:** [Redacted]

**Sent:** 26 June 2018 12:47

**To:** [Redacted]

**Cc:** [Redacted]

**Subject:** Aviation emissions from an expanded Heathrow

Dear [Redacted],

I hope that this finds you well. I've calculated the projected emissions we could expect for Scotland from Heathrow expansion on the basis of the additional services and passengers detailed in the draft proposal.

Assuming an extra [Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data] passengers per annum, and taking into account improvements in aircraft efficiency over time (using figures for carbon per passenger from [Redacted] ADT analysis), we can expect the following additional emissions:

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

[Redacted under – 10(4)(e) – Internal communications]

Airport	Demand	2030			2040					
		Low	Central	High	Low	Central	High	Low	Central	High
Edinburgh	Baseline	12,054,268	12,518,404	13,259,890	14,480,552	15,411,484	16,145,669	16,718,575	17,631,908	19,320,302
	LHR 3rd Runway	12,004,855	12,862,833	13,573,290	14,599,873	16,295,180	16,525,935	17,278,540	18,983,370	19,461,806
	Difference	-49,413	344,429	313,400	119,321	883,696	380,266	559,965	1,351,462	141,504
Glasgow	Baseline	11,064,991	12,221,693	12,898,815	12,297,935	13,100,622	14,290,239	14,326,104	15,259,088	16,042,200
	LHR 3rd Runway	10,893,954	11,645,763	12,493,622	12,030,067	12,117,976	13,891,667	13,959,995	14,037,473	16,124,822
	Difference	-171,037	-575,930	-405,193	-267,868	-982,646	-398,572	-366,109	-1,221,615	82,622

[Redacted under – 10(4)(e) – Internal communications]

Very best,

[Redacted]

---

**Subject:** FW: Heathrow Emissions Work

---

**From:** [redacted]  
**Sent:** 02 November 2018 11:12  
**To:** [redacted]  
**Cc:** [redacted]  
**Subject:** RE: Heathrow Emissions Work

Hi [redacted]

Can I just check in on whether there is any update on scheduling a next aviation policy / analysis / ADT / climate policy catch up meeting? If possible, I'd like to do this in the next two week (as I am then away in late November).

I'd be happy to set this up in calendars if you can confirm attendees? Am I right in saying it would be the three of us, plus [redacted] too?

Best wishes,

[redacted]

—  
[redacted] Delivery Unit | Decarbonisation Division | Directorate for Energy and Climate Change | Scottish Government  
[redacted] | Area 3F South, Victoria Quay, Edinburgh, EH6 6QQ  
[www.gov.scot/climatechange](http://www.gov.scot/climatechange) | [@ScotGovClimate](https://twitter.com/ScotGovClimate)

---

**From:** [redacted]  
**Sent:** 26 July 2018 09:34  
**To:** [redacted]  
**Cc:** [redacted]

Hi [redacted]

That's really helpful to see, thank you.

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

[Redacted under – 10(4)(e) – Internal communications]

Best regards, and very happy to discuss any aspects of the above further,

[redacted]

---

[redacted]

Delivery Unit | Decarbonisation Division | Directorate for Energy and Climate Change | Scottish Government

[redacted]

Area 3F South, Victoria Quay, Edinburgh, EH6 6QQ

[www.gov.scot/climatechange](http://www.gov.scot/climatechange) | [@ScotGovClimate](https://twitter.com/ScotGovClimate)

---

**From:** [redacted]

**Sent:** 26 July 2018 08:40

**To:** [redacted]

**Cc:** [redacted]

**Subject:** Heathrow Emissions Work

[redacted]

[Redacted under – 10(4)(e) – Internal communications]

Thanks



[redacted]

[Redacted under – 10(4)(d) – Material in the course of completion, unfinished documents, or incomplete data]

---

[redacted]

Aviation Policy  
Transport Scotland

Area 2D (N)  
Victoria Quay  
Edinburgh  
EH6 6QQ

[redacted]



TRANSPORT  
**SCOTLAND**  
COMHDAIL ALBA

An agency of  The Scottish Government

